

WHAT IS CLAIMED IS

1. A disk apparatus comprising a chassis outer sheath having a base body and a lid, in which

a front surface of said chassis outer sheath is formed with a disk inserting opening into which a disk is directly inserted, a spindle motor and a pickup are held by a traverse provided on said base body,

a slider mechanism is disposed on one end of said traverse, said slider mechanism includes a vertically moving cam mechanism which brings said traverse close to and away from said base body, wherein

a cam groove of said vertically moving cam mechanism comprises a first cam portion which moves together with said slider mechanism and a second cam portion which is displaced with respect to said first cam portion,

when a vertically moving pin of said vertically moving cam mechanism exceeds a predetermined height in said cam groove, said second cam portion rises and said second cam portion limits movement of said vertically moving pin, and when said vertically moving pin is equal to or lower than the predetermined height in said cam groove, said second cam portion is held at its lowered position.

2. The disk apparatus according to claim 1, wherein when said vertically moving pin exceeds the predetermined height in said cam groove, said second cam portion rises to a height where said cam groove is formed, and said vertically moving pin is limited by a spring or a stopper so that said vertically moving pin does not rise more than a height at which said cam groove is formed.

3. The disk apparatus according to claim 1, wherein said second cam portion limits an upper surface of said vertically moving pin.

4. The disk apparatus according to claim 1, wherein one end

of said second cam portion is turnably held by said first cam portion so that the other end of said second cam portion can vertically move, a resilient member downwardly biases the other end of said second cam portion.

5. The disk apparatus according to claim 1, wherein said second cam portion is downwardly biased using said resilient member.

6. The disk apparatus according to claim 1, wherein a portion of said second cam portion is provided with a lower limiting cam wall which limits a lower side of said vertically moving pin, and when said vertically moving pin is equal to or lower than the predetermined height in said cam groove, said vertically moving pin presses said lower limiting cam wall of said second cam portion, and holds said second cam portion in its lowered position.

7. The disk apparatus according to claim 1, wherein said base body is provided with a limiting member for limiting a vertical direction of said second cam portion, said second cam portion is provided with a receiver for receiving said limiting member, and by forward and backward motion of said second cam portion, at a predetermined position, said limiting member presses said receiver of said second cam portion, thereby holding said second cam portion in its lowered position.

8. The disk apparatus according to claim 1, wherein said base body is provided with said second cam portion and with this, said second cam portion does not move together with said slider mechanism.

9. A disk apparatus in which
a slider mechanism is disposed on one end of a traverse,
said slider mechanism includes a vertically moving cam
mechanism which brings one end of said traverse close to and

away from said base body, wherein

a cam groove of said vertically moving cam mechanism comprises a first cam portion which moves together with said slider mechanism and a second cam portion which is displaced with respect to said first cam portion to limit an upper surface of a vertically moving pin,

when said vertically moving pin of said vertically moving cam mechanism exceeds a predetermined height in said cam groove, said second cam portion rises and said second cam portion limits movement of said vertically moving pin, and when said vertically moving pin is equal to or lower than the predetermined height in said cam groove, said second cam portion is held at its lowered position.